COATING DEVICE AND METHOD USING PICK-AND-PLACE DEVICES HAVING EQUAL OR SUBSTANTIALLY EQUAL PERIODS

Abstract

5 [0135] A sufficient number of pick-and-place devices (e.g., rolls) whose periods of contact with a substrate are equal or substantially equal to one another are used to form continuous void-free uniform coatings despite the occurrence of unintended or intended coating caliper surges, depressions or voids. The wetted surfaces of the devices contact and re-contact the coating at positions on the substrate that are different from one another. Extremely uniform and extremely thin coatings can be obtained at very high rates of speed. The pick-and-place devices also facilitate drying and reduce the sensitivity of drying ovens to coating caliper surges. Equipment containing the pick-and-place devices is simple to construct, set up and operate, and can easily be adjusted to alter coating thickness and compensate for coating caliper variations.